

Table 2**Deduced Amino Acid Sequence from the cDNA**

5 MDQNSYRRRSSPIRTTTGGSKSVNFSELLQMKYLSSGT
MKLTRTFTTCLIVFSVLVAFSMIFHQHPSDSNRIMGFAEA
RVLDAGVFPNVTNINSDKLLGGLLASGFDEDSCLSRYS
VHYRKPSYPKPSYLISKLRNYEKLHKRCGPGTESYKKA
10 LKQLDQEHIDGDGECKYVWVWISFSGLGNRILSLASVFLYA
LLTDRVLLVDRGKDMDDLFCPEFLGMSWLLPLDFPMTD
QFDGLNQESSRCYGYMVKNQVIDTEGTLSHLYLHLVHD
YGDHDKMFFCEGDQTFIGKVPWLIVKTDNYFVPSLWLIP
GFDDELNKLFPQKATVFHHLGRYLFHPTNQVWGLVTRY
15 YEAYLSHADEKIGIQVRVFEDEDPGPFQHVMDQISSCTQK
EKLLPEVDTLVERSRHVNTPKHKAVLVTSLNAGYAENLK
SMYWEYPTSTGEIIGVHQPSQEGYQQTEKKMHNGKALA
EMYLLSLTDNLVTSWSTFGYVAQGLGGLKPWILYRPEN
20 RTTPDPSCGRAMSMEPCFHSPPFYDCKAKTGIDTGTLV
PHVRHCEDISWGLKLV

Table 3
cDNA Sequence

5 ATGGATCAGAATTCGTACAGGAGAAGATCGTCTCCGAT
CAGAACCACTACCGGCGGTTCAAAGTCCGTTAATTTCTC
CGAACTACTTCAAATGAAGTATCTCAGCTCCGGTACGAT
GAAGCTCACGAGAACCTTCACTACTTGCTTGATAGTCTT
CTCTGTACTAGTAGCATTCTCAATGATCTTTCACCAACA
10 CCCATCTGATTCAAATCGGATTATGGGTTTCGCCGAAGC
TAGAGTTCTCGACGCCGAGTTTTCCCAAATTCTGATAA
GCTTCTCGGAGGGCTACTTGCTTCTGGTTTTGATGAAGA
TTCTTGCCCTTAGTAGGTACCAATCAGTTCATTACCGTAA
ACCTTCACCTTACAAGCCATCTTCTTATCTCATCTCTAAG
CTTAGAACTACGAAAAGCTTCACAAGCGATGTGGTCC
15 GGGTACTGAATCTTACAAGAAAGCTCTAAAACAATTGA
TCAAGAACATATTGATGGTGATGGTGAATGCAAATATGT
TGTGTGGATTCTTTTAGCGGCTTAGGGAACAGGATACT
TTCTCTAGCCTCGGTTTTTCTTTACGCGCTTTTAACGGAT
AGAGTCTTGCTTGTTGACCGAGGGAAAGACATGGATGA
20 TCTCTTTTGCAGCCGTTTTCTCGGTATGTCGTGGTTGCT
ACCTTTAGATTCCCTATGACTGATCAGTTTGATGGATTA
AATCAAGAATCATCTCGTTGTTATGGATATATGGTGAAG
AATCAGGTGATTGATACTGAGGGAACTTTGTCTCATCTT
TATCTTCATCTTGTTGATGATTATGGAGATCATGATAAGA
25 TGTCTTCTGTGAAGGAGACCAAAACATTCATCGGGAAAG
TCCCTTGTTGATTGTTAAACAGACAATTACTTTGTTCC
ATCTCTGTGGTTAATACCGGGTTTCGATGATGAACTAAA
CAAGCTATTTCCACAGAAAGCGACTGTCTTTCATCACTT
AGGTAGGTATCTTTTTACCCAACTAACCAAGTATGGGG
30 CTTAGTCACTAGATACTACGAAGCTTACTTATCGCATGC
GGATGAGAAGATTGGGATTCAAGTAAGAGTTTTTCGATGA
AGACCCGGGTCCATTTACGCATGTGATGGATCAGATTTT
ATCTTGTA CTCAAAAAGAGAACTTCTACCTGAAGTAGA
CACACTAGTGGAGAGATCTCGCCATGTTAATACCCCCAA
35 ACACAAAGCCGTGCTTGTCACATCTTTGAACGCGGGTTA
CGCGGAGAACTTAAAGAGTATGTATTGGGAATATCCGA
CATCAACTGGAGAAATCATCGGTGTTTCATCAGCCGAGC
CAAGAAGGTTATCAGCAGACCGAAAAAAGATGCATAAT
GGCAAAGCTCTTGCGGAAATGTATCTTTGAGTTTGACA
40 GATAATCTTG TGACAAGTGCTTGGTCTACATTTGGATAT
GTAGCTCAAGGTCTTGGAGGTTTAAAGCCTTGGATACTC
TATAGACCCGAAAACCGTACAACCTCCCGATCCTTCGTGT
GGTCGGGCTATGTCGATGGAGCCTTGTTCCTCGCC
TCCATTCTATGATTGTAAAGCGAAAACGGGTATTGACAC
45 GGGAACACTAGTTCCTCATGTGAGACATTGTGAGGATAT
CAGCTGGGGACTTAAGCTAGT ATGA

Table 4
Genomic Sequence

5 **BAC T18E12 Accession AC005313 nucleotides 41227-43179 (contains an intron).**

atggatcagaattcgtacaggagaagatcgtctccgatcagaaccactaccggcggttca
 aagtcggtaatttctccgaactacttcaaatgaagtatctcagctccggtacgatgaag
 10 ctacgagaaccttactacttgccttgatagcttctctgtactagtagcattctcaatg
 atctttaccaacacccatctgattcaaatcggattatgggttcgccgaagctagagtt
 ctgcagccggagtttcccaaatgttactaacatcagtagtggttctccaagcaaaag
 tttgagctttattactttagatctcgttcttactacacgatttgcctctgtatgtcc
 atagctcttggtcgatttcaatttgagatctatactcataaaaattgagctttgtcagt
 15 cacaagactactattttggttgatgtgttttgggtaaaaagtgcctttgttttgg
 tctcagcttagactgttacattcgttttccgagtttttagattttgtctgattctg
 tttgtttttagattctgataagctctcggagggtacttgcctctggttttgatgaa
 gattcttgccttagtaggtaccaatcagttcattaccgttaaaccttaccttacaagcca
 tcttctatctcatctctaagcttagaaactacgaaaagcttcaacagcgatgtggtccg
 20 ggtactgaatcttacaagaaagctctaaaacaacttgatcaagaacatattgatggtgat
 ggtgaatgcaaatatgtgtgtggttcttttagcggcttagggaacaggatacttct
 ctagcctcggttttctttagcgcgttttaacggatagagcttgcctgttgaccgaggg
 aaagacatggatgaictcttttgcgagccgttctcggtagtgcgtgtgtgtactctta
 gatttccctatgactgatcagtttgatggatlaaatcaagaatcatctcgttgtatgga
 25 tatatggtgaagaatcagggtgatgactgagggaaacttgtctcatcttctcat
 ctgttcatgattatggagatcatgataagatgttcttctgtgaaggagaccaaacttc
 atcgggaaagtcccttgggtgattgttaaacagacaattacttgttccatctctgtgg
 ttaataccgggttccgatgatgaactaaacaagctattccacagaaagcgactgtctt
 catcacttaggtaggtatcttttaccacaaactaaccaagtaggggcttagtactaga
 30 tactacgaagcttactatcgcacatgcggatgagaagattgggattcaagtaagagtttc
 gatgaagacccgggtccatttcagcatgtgatggatcagattcatctgtactcaaaaa
 gagaaacttctacctgaagtagacacactagtgagagatctcgccatgttaatacccc
 aaacacaaagccgtgctgtcacatcttgaacgcggttacgcgggagaacttaagagt
 atgtattgggaatatccgacatcaactggagaaatcatcgggttcatcagccgagccaa
 35 gaaggttatcagcagaccgaaaaaaagatgcataatggcaaagctcttgcggaaatgtat
 cttttgagtttgacagataatctgtgacaagtgttggcttacatttgatatgtagct
 caaggtcttgagggttaaaagccttggatactctatagaccgaaaaccgtacaactccc
 gatccttcgtgtgtcgggctatgtgatggagccttgttccactgcctccattctat
 gattgtaaagcgaaaacgggtattgacacgggaacactagttcctcatgtgagacattgt
 40 gaggatatcagctggggacttaagctagtatga

Table 5**Adjacent homologous gene on BAC****BAC T18E12 Accession AC005313 nucleotides 43562-45245**

5 atgagaatcacagagatcttagcttggttcatggttttagtcctgtctcgctagtaatc
 gtagccatgtttggatatgatcaaggaaatggctttgtacaagcatctagattcataaca
 atggaaccaaagtgcacatcctcatcagatgattcatcactagtcagagagatcaagaa
 caaaaaggtaaaacttacttctcttttggttgaaatgtttctaaattttcttgaa
 tgtttcatcagattctgtagatatgtctctgcttgagggtactgtatctggttcaa
 10 gaaagagcttgccttgagtagataccaatcttacctctaccgtaaagcttcaccgtataa
 acctcgttgcactactttcgaagcttagagcttacgaagagcttcataaaagatgtgg
 accgggaacaagacagtataccaatgcagaaagattgctaaacagaaacaaacaggatga
 gatggaatcacaaggatgcaagtagtggttggatgtcgtttagcggattaggaaacag
 gattatcagattgtctgtgttctgtatgcaatgttgacagatagagtctgtgtgt
 15 tgaaggagggggaacagttcgcggatttattctgcgaaccgttctcgataaccacttgggt
 actaccgaaagattcaccttagctagtcagttcagtggttgggtcaaaactcagctca
 ctgccatggagatatgtgaagaggaaactgattaatgaatcctctgttctgtctgtc
 tcactctatctcatctagctcatgactacaatgagcacgacaaaatgttctctgtga
 agaagatcaaaaatctctaaagaatgttccttgggtgatcatgaggacaaacaacttct
 20 tgcaccgtctcttttctgatttcttcttgaagaagagctcggtatgatgttccga
 gaaaggaacggttttaccatttaggtcgttacctttccatccttcaaatcaagctcgt
 gggactaatcacaagatactatcaagcttacttagccaaagctgatgaaaggattggct
 tcaaataagagctttgatgagaaatccggcgtatctcctcgagtcacaaagcaaatcat
 ttctgtgttcaaaacgagaatctgttaccgagactaagcaaagggtgaagaacaatacaa
 25 gcagccatcagaagaagagttgaaactcaaatctgtcttggtcaccctttaacaacagg
 atactttgagatcttgaacaatgtattgggaaaatccaactgtaacaagagatgtgat
 tggaaatacatcagccaagtcataaggaacatcaacaacagagaagctaatagcataacag
 gaaagcttgggcagagatgtacttactcagcttaacggataagttgggtattagtgcttg
 gtctacatttgggtatgtagctcaaggacttgaggattaagagcttggattctgtataa
 30 acaagagaatcaaaaccaaacccaaatccaccttgcggtagagctatgtaccagatccttg
 ttccatgctctccttactatgattgcaaagcaaagaaaggaactgacactggtaatgt
 tgtcccgcatgttagacattgtgaagatattagctggggacttaagctgttgacaactt
 ttag

35 Protein translation:

MRITEILALFMVLVPVSLVIVAMFGYDQGNQFVQASRFITMEPN
 VTSSSDSSSLVQRDQEKKDSVDMSSLLGGLLVSGFKKESCLSRYSYLYRKASP
 YKPSLLLSKLRAYEELHKRCGPGRQYTNAERLLKQKQTGEMESQGCKYVWWM
 40 SFSGLGNRISIASVFLYAMLTDRVLLVEGGEQFADLFCEPFLDTTWLLPKDFTLA
 SQFSGFGQNSAHCHGDMLEKRLKLINESSVSSLSHLYLHLAHDYNEHDKMFFCEE
 DQNLKKNVPWLIMRTNFFAPSLFLISSFEEELGMMFPEKGTVFHHLGRYLFHPS
 NQVWGLITRYYQAYLAKADERIGLQIRVFDEKSGVSPRVTKQIISCVQENENLLPRL
 SKGEEQYKQPSEELKLKSVLVTSLTTGYFEILKTMWENPTVTRDVIGIHQPSH
 45 EGHQQTEKLMHNRKAWAEMYLLSLTDKLVISAWSTFGYVAQGLGGLRAWILYK
 QENQTNPNPPCGRAMSPDPCFHAPPYYDCKAKKGTDTGNVPHVRHCEDISW
 GLKLVDNF

Table 6

Arabidopsis thaliana cDNA clone 202C15T7, mRNA sequence [Arabidopsis thaliana]

5

DNA Sequence

10

TGTTCCATCNTTATGGTTTAATCCAACNTCCAAACCGAACTAACGAAGCTGT
TTCCGCANAAAGAAACCGTGTTTCACCACTTGGGTCGGNATCTTTTTNACCCT
AAAAATCAAGTTTGGGATATCGTCACNAAGTACTACCATGNTCACTTATCCAA
AGCAGATGNGAGACTCGGGATTCAAATTCGGGTTTTTNGCGATCAAGGTGGA
TACNACCAACACGTCATGGACCAGGTCATATCCTGCACACA

15

Translation of 202C15T7 in correct ORF.

VPSLWFNPTXQTELTCLFPXKETVFHHLGRXLFXPKNQVWDIVTKYYHXHLSKA
DXRLGI QIRVFXDQGGYXQHVMQVISCT

Table 7**Arabidopsis thaliana cDNA clone 170K19T7, mRNA sequence [Arabidopsis thaliana]**

5 TGGNATTACAGATTACAAAGATACGAGGNTCTTCATAGACGTTGTGGACCATT
CACTAGATCCTATAACTTAACACTTGACAAACTCAAGTCGGGAGATCGGTCTG
ACGGTGAAGTTTCTGGTTGTAGATATGTAATATGGTTGANTTCCAATGGTGAT
10 CTTGGGAATAGGATGCTGAGTCTAGCTTCANCTTTNCTTTATGCTCTCTTAAC
AAATAGGTTTTNACTTGTGCGAACTAGGAGTTGACATGGCTGATCTTTCTNCG
AGCCATTTCAAACACTACTTGGTTTCTTCCCCCAGAGTTTCCGCTCAACAGC
CACTTCAACGAGCAAGTCTCTTTCTAACGGAAATTNTTGGCAACCCCGATGG
GTTCATAATCGNNCATGTAGTTCCGTNATTCCCAGTGNCCAACAAAAAGCTTT
15 TTNTTTTTGNNAGGNTAGCCAAGTTTTTTTTNGGGGAAACCCCTGGTTGTCTT
AAAANC GG GTAGNT TTTTTTCCCAACTTTTTTTTNA

Table 8
T31J1TR TAMU Arabidopsis thaliana genomic clone T31J1, genomic survey
sequence

5 CAAGCTTACAAGAAAGCAACGGAGATTCTTGGTCATGATGATGAGAATCATTC
AACCAAATCTGTTGGTGAATGCAGATACATTGTGTGGATTGCTGTTTATGGGC
TAGGAAACAGAATACTTACTCTTGCTTCTCTGTTTCTCTATGCTCTCTTGACTG
ACAGAATCATGCTTGTTGACCAACGTACGGACATAAGTGACCTCTTCTGTGA
GCCTTTTCCAGGTACTTCCTGGCTACTCCCTCTGGATTTTCCACTAACAGATC
10 AATTAGATAGCTTCAACAAGGAATCTCCGCGCTGTTACGGAACAATGTTGAA
GAATCATGCCATTAACCTCAACTACAACAGAAAGCATCATCCCCTCGTACCTCT
GTCTTTATCTTATTCACGATTACGACGATTATGATAAGATGTTCTTCTGTGAAA
GTGACCAAATTCTCATCAGGCAAGTCCCTTGGTTGGTCTTCAACTCGAATCTT
TACTTTATCCCATCTCTATGGTTGATCCCTTCTTTTCAGTCAGAATTAAGCAAG
15 CTATTCCACAGAAAGAAACCGTCTTTCACCATTTGGCTCGCTATCTTTTTCA
CCCGACTAACCAAGTTTGGGGCATGATCACAAGATCCTATAATGGGTATTTAT
CAAGAGCTGATGAGAGACTTGGGATTCAAGT

20

Table 9

F16M20TR IGF Arabidopsis thaliana genomic clone F16M20, genomic survey sequence

5

TTCTCCTTTTGACCTTTTTTTTTTGTATATGTTTCAGACGAATCCGAAACACCGG
GGCGGGATAGACTAATAGGAGGGCTTTTAACCGCAGATTTTCGATGAAGGTTTC
TTGCTTGAGTAGGTATCATAAACTTTCTTGTATCGCAAGCCTTCACCATACA
AGCCGTCTGAATATCTTGTCTCGAAGCTTAGAAGCTATGAGATGCTTCACAAA
CGTTGCGGTCCAGGGACAAAAGCTTACAAGGAAGCAACAAAGCATCTTAGTC
ATGATGAGAATTATAATGCAAGCAAATCAGATGGTGAATGCCGATACGTTGTG
TGGCTCGCTGATTACGGGCTTGAAACCGACTACTCACTCTTGCTTCTGTGT
TCCTCTACGCTCTCTTGACTGATAGAATCATTCTTGTTGACAACCGCAAGGAT
ATTGGTGATCTCTTATGCGAGCCATTTCCAGGTACTTCATGGTTGCTTCCTCT
CGACTTTCCATTGATGAAATATGCTGATGGATACCACAAGGGATACTCTCGTT
GTTACGGAACAATGTTGGAAAATCATTCCATCAACTCGACTTCATTCCCGCCA
CATCTATATAGGCATAACCTTCATGATTCAAGGGATAGTGATAAGATGTTCTT
CTGCCAAAAAGATCAAAGTTTGATTGACAAAGTCCCT

10

15

20

Table 10**F16A14-T7 IGF Arabidopsis thaliana genomic clone F16A14, genomic survey sequence**

5 GGGGGGGATGGTTACTGACTCCTATATGCCGAATCTTTGACATCTCTGTTTC
AATGGCCACAATCCTATTGAATCAGCTATATTAAGAAAATTATAAATCATCAA
ATAGCTTAAGACCATCGTTCCACGATCCTCACAATGCCTTNCNAGAGGAAC
TACCTTCCCGGAGTTAGTTCCCATTCGGGTTACATCCATGAGACGGAAGA
GTAAGGTGACNATGGTCCATCGACGTGGATTGAATACNCTGTGGATCAGGAG
10 CTGTACGACCTGCTGGCTGATAAAGTAACCATGGCTTTAATCCTCCAAGAATA
TGAGCAACATATCCNAATGTAGACCTTGCACTTGTGACTATTTTATCAGTTAG
ACTTAGAAGATACNTCTCGGCGAGCGCCTTTTGGTCGTGTANCTTCTTGTCTT
NTGTTGAACCCTTTCTCCACTTGGCTGATNAACTTCAATGATCTCCCCTGCTG
AACTCGGTCGTTCCCAATACATGTTCTNTAAGGTNTCAGAGTACTCTGGATAC
15 NAAGATGTGACNAGAACAGCTNTAAGTGTCTGGCTTCTTGAATATATGACTTT
TGGCTCTTCTTGTGCACCTTGTTCAAGGCAAAAGGTCTCTCTTCTGTCCAAC
TACAACTTGATCCNTTNCCTGTAAANATTTCCCCTCGAATGCTGAACTACCC
CTTCTCTAATAACCNCTCTCCTCCGCTCCTGAATAACTTCGGCTTGCTAGA
ATTCTCTCATTACCTCCCCACTTGAACCC CCCC GCGGTACAAACC
20

Table 11**T26M12-T7 TAMU Arabidopsis thaliana genomic clone T26M12, genomic survey sequence [Arabidopsis thaliana]**

5 ATTCGTGATGAGTACTATGCAAGCGAATCAAATGGTGACTGCAGATACATTGT
ATGGCTAGCTAGGGACGGGCTTGGAAACAGATTAATTACTCTTGCTTCCGTG
TTTCTCTACGCTATCTTGACTGAGAGAATCATTCTTGTTGACAACCGCAAGGA
TGTTAGTGATCTCTTATGTGAGCCATTTCCAGGTACTTCATGGTTGCTTCCGC
10 TTGACTTTCCAATGCTGAATTATACTTATGCTTATGGCTACAATAAGGAATACC
TCGTTGTTACNGTACAATGTTGGAAAATCATGCCATCAACTCGACTTCAATTC
CGCCACATCTATATCTCCATAACATCCATGAATCTAGGGATANTGATAAGCTG
TTCTTCTGCCAAAANGGATCAAAGTTTTTTATCGACANATTTCCATGGGTAAAT
TAATTCANAACCAATGCCTTACTTTGGTTCCCAATCTTTATGGGCTGAAATCC
15 CANCTTTTCCAN ACCAAAACTAAGTTTAAGCTTATCCCCGGCAGAAAAGG

Table 12**ATTS3691 Gif-SeedA Arabidopsis thaliana cDNA clone YAY241, mRNA
sequence [Arabidopsis thaliana]**

5	AATGGTGATCTTGGGAATAGGATGCTGAGTCTAGCTTCAGCTTTTCTTTATGC
	TCTCTTAACAAATAGGTTTTAACTTGTCGAACTAGGAGTTGACATGGCTGACC
	TTTTCTGCAAGCCATTTCCAAACACTACTTGGTTTCTCCCCCAGAGTTTCCG
	CTCAACAGCCACTTCAACGAGCAGTCTCTTCTACGCAATTCTGGCAACCCGA
	TGGTTGCATATCGACATGTAGTTCGTGAATTCCAGTGACCAACAAAAGCTTTT
10	CTTTTGTGAGGATAGTCAAGTTTTGT

**Table 13 T22N7TRB TAMU Arabidopsis thaliana genomic clone T22N7,
genomic survey sequence [Arabidopsis thaliana]**

5

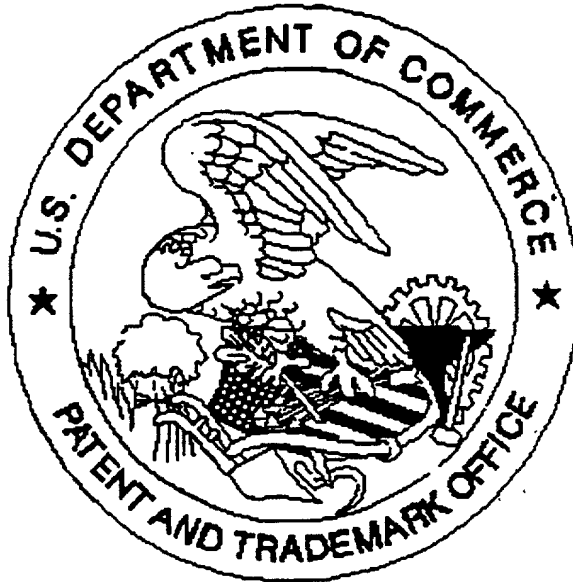
CAAGCTTCGAGACAAGATATTCAGACGGCTTGTATGGTGAAGGCTTGCGATA
CAAGAAAGTTTTATGATACCTACTCAAGCAAGAACCTTCATCGAAATCTGCGG
TAAAAGCCCTCCTATTAGTCTATCCCGCCCCGGTGTTTCGGATTCTGTCTGAA
CATATAACAAAAAAAAAAGGTCAAAGGAGAATTCTTTGAGCTAACAATG

Table 14

31198 Lambda-PRL2 Arabidopsis thaliana cDNA clone 170K19XP 3', mRNA sequence [Arabidopsis thaliana]

5	AAANNCCTTAANCAANTTTTACCGAANTCAAGGCGTTTACCCACTTCTCNCCN
	GGTTTTAAGGTTCAAGGCGNNTTTTGGNAACCCNACAGTGATGGNGAGTTAT
	CCGCGTTTACAANCCGACTACAAGGCTTCCAAAAACCCCGNGGAACNTGG
	AANTTAAGAGANCATGGCTGAGATATACCTTCTGAGTTGTTCTGATGCNCTG
	GTGGTCACAGGTTTATGGTCCTCACTCGTGGAGGTTGCCTCATGGCCTTGGA
	GGGTTGAAGCCATGNGTGTTGAACAAAGCTGAGAATGGGACTGCCCATGAG
10	CCTTACTGTGTGAAAGCAAGATCAATAGAGCCCTGTTCCCAAGCGACATTGT
	TCCATGGCTGTAAAGATTGAAACATGAATAGAGTCTCGAGGGCTTTTTTTGCC
	TTTAATAGATGTTGTACGGTCAAGAATTTGAGAGTTGCCCAATAGACACGTAA
	GGAATATTAGGATTAAGTATGTATCAGTTCATGACTTGATCGAGTTCTATATTC
	TTTTCAAT
15	

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